ESC-BP SERIES

WIDE U PROFILE SHEET PILES

A WIDE PROFILE SHEET PILE WITH BOX CLUTCH FOR EASY GROUTING

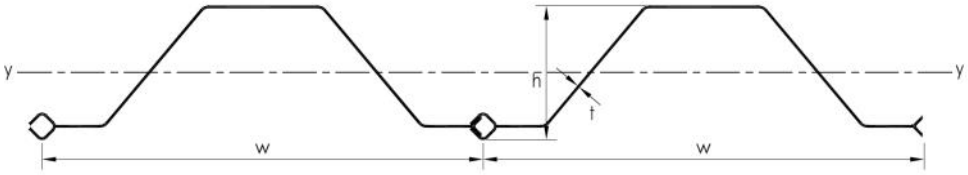
Designed with an open clutch suitable for post installation grout sealing, the ESC-BP Series sheet pile is ideal for de-watering works, groundwater cutoff walls and pollution control situations. This pile with its light weight wide profile resulting in fewer clutches per unit length of wall provides an attractive commercial proposition for retaining walls and other applications.

ORDER OPTIONS

Steel Grades	✓ Q235B, Q345B, Q345C, Q390B, Q420B ✓ S235, S275JR, S355JR ✓ ASTM A572 Gr42, Gr50, Gr60 ✓ Others available on request
Length	14.0m maximum Longer lengths can be spliced (>30m possible) Any project specific length can be produced
Delivery Options	✓ Lifting Hole ✓ Grip Plate ✓ By container (11.8m or less) or Break Bulk ✓ Corrosion Protection Coatings

ESC® GROUP

Technical & Sales Hotline: +971 2550 6188 I escuae@escpileuae.com



Section	Width (w)	Height (h)	Thickness (t)	Cross Sectional Area	Weight Per Pile	Weight Per Wall	Elastic Section Modulus	Moment of Inertia	Coating Area*(both sides)
	mm	mm	mm	cm²/m	kg/m	kg/m²	cm³/m	cm⁴/m	m²/m
ESC-6BP-S	1,063	291	5.75	91.8	76.60	72.1	**600**	9,150	2.85
ESC-7BP-S	1,036	321	5.75	94.2	76.60	73.9	**700**	11,340	2.85
ESC-8BP-S	1,002	352	5.75	97.4	76.60	76.4	**800**	13,900	2.85
ESC-9BP-S	951	372	5.75	102.6	76.60	80.6	**900**	16,610	2.85
ESC-10BP-S	903	389	5.75	108.1	76.60	84.9	**1,000**	19,250	2.85
ESC-11BP-S	852	404	5.75	114.5	76.60	89.9	**1,100**	22,130	2.85
ESC-12BP-S	806	415	5.75	121.0	76.60	95.0	**1,200**	24,860	2.85
ESC-13BP	1,234	443	7.75	117.4	107.69	87.3	**1,330**	28,220	3.47
ESC-13BP-S	759	425	5.75	128.5	76.60	100.9	**1,310**	27,820	2.85
ESC-14BP	1,205	456	7.75	120.2	107.69	89.4	**1,400**	30,690	3.47
ESC-14BP-S	718	433	5.75	135.9	76.60	106.6	**1,410**	30,550	2.85
ESC-15BP	1,168	470	7.75	124.0	107.69	97.3	**1,500**	33,950	3.47
ESC-16BP-S	1,448	539	7.75	116.0	126.30	87.2	**1,610**	41,080	4.07
ESC-16BP	1,130	484	7.75	128.2	107.69	95.3	**1,600**	37,410	3.47
ESC-17BP	1,090	498	7.75	132.8	107.69	98.8	**1,710**	41,090	3.47
ESC-18BP-S	1,376	569	7.75	122.1	126.30	91.8	**1,790**	48,590	4.07
ESC-18BP	1,058	508	7.75	136.9	107.69	101.8	**1,800**	44,190	3.47
ESC-19BP	1,025	517	7.75	141.3	107.69	105.1	**1,890**	47,450	3.47
ESC-20BP-S	1,300	597	7.75	129.2	126.30	97.2	**2,000**	56,920	4.07
ESC-20BP	1,470	523	9.75	138.9	160.20	109.0	**1,990**	49,180	4.11
ESC-21BP	1,436	538	9.75	142.1	160.20	111.6	**2,100**	53,420	4.11
ESC-21BP	957	534	7.75	151.3	107.69	118.8	**2,100**	54,480	3.47
ESC-22BP-S	1,231	619	7.75	136.5	126.30	102.6	**2,190**	64,940	4.07
ESC-22BP	1,401	552	9.75	145.7	160.20	114.4	**2,210**	57,870	4.11
ESC-23BP	1,374	562	9.75	148.5	160.20	116.6	**2,300**	61,350	4.11
ESC-23BP	896	547	7.75	161.7	107.69	112.5	**2,300**	61,260	3.47
ESC-24BP-S	1,159	639	7.75	145.0	126.30	109.0	**2,410**	73,760	4.07
ESC-24BP	1,347	571	9.75	151.5	160.20	118.9	**2,390**	64,940	4.11
ESC-25BP	1,310	584	9.75	155.8	160.20	122.3	**2,520**	69,940	4.11
ESC-26BP	1,281	593	9.75	159.3	160.20	125.0	**2,610**	73,840	4.11
ESC-27BP	1,252	601	9.75	163.0	160.20	127.9	**2,720**	77,880	4.11
ESC-28BP	1,223	609	9.75	166.9	160.20	131.0	**2,820**	82,070	4.11
ESC-29BP	1,203	614	9.75	169.6	160.20	133.2	**2,900**	84,940	4.11
ESC-30BP	1,173	622	9.75	174.0	160.20	136.6	**3,010**	89,390	4.11
ESC-31BP	1,303	559	11.75	188.1	192.33	147.6	**3,090**	80,750	4.11
ESC-32BP	1,276	566	11.75	192.1	192.33	150.8	**3,200**	84,800	4.11
ESC-34BP	1,230	578	11.75	199.2	192.33	156.4	**3,390**	91,810	4.11
ESC-36BP	1,183	588	11.75	207.0	192.33	162.5	**3,590**	99,150	4.11
ESC-38BP	1,136	597	11.75	215.7	192.33	169.3	**3,810**	106,850	4.11
ESC-40BP	1,097	604	11.75	223.3	192.33	175.3	**3,990**	113,290	4.11
ESC-42BP	1,381	664	14.0	229.2	248.36	179.9	**4,220**	132,530	4.54
ESC-44BP	1,348	672	14.0	234.7	248.36	184.2	**4,380**	139,490	4.54
ESC-46BP	1,304	683	14.0	242.6	248.36	190.4	**4,610**	149,170	4.54
ESC-48BP	1,271	691	14.0	248.9	248.36	195.4	**4,780**	156,730	4.54
ESC-50BP	1,226	700	14.0	258.1	248.36	202.6	**5,030**	167,250	4.54

INTERLOCKING CLUTCH

*excludes internal section of interlock

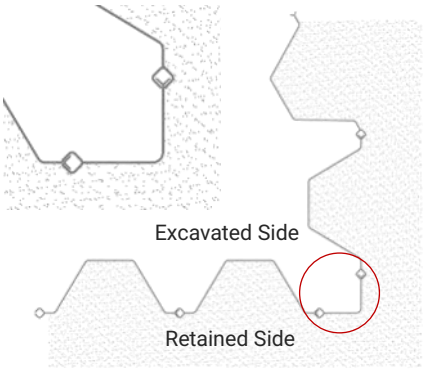
CLASSIFICATION

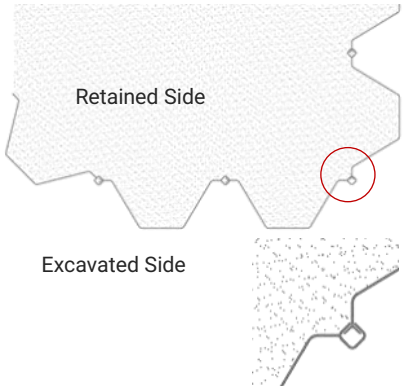
All sheet piles, excluding the -S Series are class 2 or 3 for grade S355 and below.

BP-S Series sheet piles are class 3 for S275 and below in accordance to EN 1993-5:2007. Contact engineering@escpile.com if further detail is required

CORNER PILES

Due to the flexibility of the forming process, the ESC-BP Series Sheet Piles can be formed to almost any corner configuration, without requiring any wastage or welding. Note that the interlocks should be orientated toward the retained side as shown in the following figures.





STEEL GRADES & MANUFACTURING TOLERANCES

COLD ROLLED & COLD FORMED SHEET PILES

STEEL GRADES

Classification		Mechanical Properties					Chemical Composition % (max)				
		Minimum Yield Point MPa		Ultimate Tensile Strength MPa	Elongation % (min)	Impact Strength (Charpy)	C	Si	Mn	P	S
		t≤16	16<t≤40		3≤t≤40						
BS EN 10025-2: 2004	**S275JR**	**275**	**265**	410-560	23	27J at 20˚C	0.21	-	1.50	0.035	0.035
	S275J2	**275**	**265**	410-560	21	27J at -20˚C	0.18	-	1.50	0.025	0.025
	S355JR	**355**	**345**	470-630	22	27J at 20˚C	0.24	0.55	1.60	0.035	0.035
BS EN 102481: 1998	**S390GP**	**390**	**390**	≥ 490	20	-	0.24	0.55	1.60	0.04	0.040
	S430GP	**430**	**430**	≥510	19	-	0.24	0.55	1.60	0.04	0.040
GB/T 700:2006	**Q235B**	**235**	**225**	375-500	26	27J at 20˚C	0.20	0.35	1.40	0.045	0.045
	Q275B	**275**	**265**	410-540	22	27J at 20˚C	0.21	0.35	1.50	0.045	0.045
GB/T1591:2008	**Q345B**	**345**	**335**	470-630	20	34J at 20˚C	0.20	0.50	1.70	0.035	0.035
	Q390B	**390**	**370**	490-650	20	34J at 20˚C	0.20	0.50	1.70	0.030	0.030
	Q420B	**420**	**400**	540-680	19	34J at 20˚C	0.20	0.50	1.70	0.030	0.030
	MDB350	**350**	**350**	470-630	21	40J at 20˚C	0.20	0.50	1.50	0.025	0.020
ASTMA36-14	**A36**	**250**	**250**	400-550	23	-	0.26	0.40	-	0.040	0.050
ASTM A572-2013a	**A572 Gr.42**	**290**	**290**	≥415	20	-	0.21	0.40	1.35	0.040	0.050
	A572 Gr.50	**345**	**345**	≥450	18	-	0.23	0.40	1.30	0.040	0.050
	A572 Gr.60	**413**	**413**	≥517	16	-	0.26	0.40	1.35	0.040	0.050
ASTM A690-2013a	**A690**	**345**	**345**	>485	21	-	0.22	0.40	0.60-0.90	0.08-.015	0.040
JIS G3101-2010	**SS400**	**245**	**235**	400-510	17 (5<t<16), 21 (t<5 or t>16)	-	-	-	-	0.050	0.050
	SS490	**285**	**275**	490-610	15 (5<t<16), 19 (t<5 or t>16)	-	-	-	-	0.050	0.050
	SS540	**400**	**330**	≥540	13 (5<t<16), 16 (t<5 or t>16)	-	0.30	-	1.60	0.040	0.040
JIS A5523-2012	**SYW295**	**295**	**295**	≥490	17	43J at 0˚C	0.18	0.55	1.50	0.040	0.040
	SYW390	**390**	**390**	≥ 540	15	43J at 0˚C	0.18	0.55	1.50	0.040	0.040
MS 2025-1:2006	**S235JR**	**235**	**225**	360-510	26	-	0.17	-	1.40	0.035	0.035
	S275JR	**275**	**265**	410-560	23	-	0.21	-	1.50	0.035	0.035
	S355JO	**355**	**345**	470-630	22	-	0.20	0.55	1.60	0.030	0.030

MANUFACTURING TOLERANCES TO BS EN 10249

Component	Tolerance
Mass	± 5%
Length	± 50mm
Height (≤ 200mm)	± 4.0mm
Height (> 200mm & ≤ 300mm)	± 6.0mm
Height (> 300mm & ≤ 400mm)	± 8.0mm
Height (> 400mm)	± 10.0mm
Width of Single Pile	± 2% of width
Width of Double Z or Wide U	± 3% of width
Squareness of Ends	2% of width

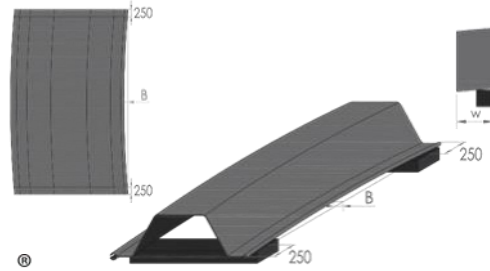
Nominal Thickness	Tolerance
5mm	± 0.29mm
6mm	± 0.31mm
8mm	± 0.35mm
9mm	± 0.40mm
10mm	± 0.40mm
12mm	± 0.43mm
13mm	± 0.46mm
15mm	± 0.46mm

SHEET PILE MARKING

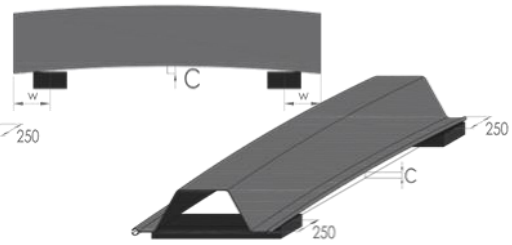
ESC is able to apply adhesive stickers to its products to provide useful information such as destination, order number, project identifier, client name and others. To enable good traceability, material heat number & pile specification is included as standard.

Bending B

±0.2% of the length

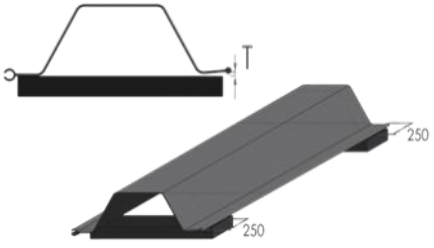


Curving C



Twisting T

±0.2% of the length but no more than 100mm



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